

GROUND FORCE

04 & UP NISSAN TITAN FRONT 2.0" LEVELING KIT INSTALLATION

READ INSTRUCTIONS/WARNINGS COMPLETELY THROUGH BEFORE STARTING.
FAILURE TO ADHERE TO THE INSTRUCTIONS WILL VOID ANY GROUND FORCE WARRANTY
IT IS RECOMMENDED THAT INSTALLATION BE DONE BY A QUALIFIED MECHANIC.

REPLACE ALL STOCK PARTS THAT ARE DAMAGED OR WORN.

INTERMIXING OF PARTS IS NOT RECOMMENDED AND WILL VOID THE WARRANTY.

ALWAYS WEAR EYE PROTECTION.

ALWAYS USE PROPERLY RATED SAFETY STANDS WHENEVER A PROCEDURE REQUIRES
YOU TO BE UNDER A VEHICLE. KNOW AND FOLLOW ALL SAFE WORK PRACTICES TO
AVOID SERIOUS INJURY OR DEATH.

NOTE: WE WANT TO THANK YOU FOR PURCHASING A *GROUND FORCE* PREMIUM LEVELING KIT.
THIS KIT IS MANUFACTURED FROM HIGH QUALITY MADE IN THE USA MATERIALS. THE HIGH
STRENGTH URETHANE THAT WE USE FOR OUR SPACERS IS HEAT RESISTANCE, IMPACT
RESISTANCE AND ALSO HAS A EXCELLENT RESISTANCE TO OIL, SOLVENTS AND MANY OTHER
CHEMICALS. WE ALSO USE HIGH STRENGTH 4140 MATERIAL FOR OUR STRUT EXTENDERS THAT
HAS BEEN HEAT TREATED, BLACK ZINC COATED AND AFTER BAKED TO RELIEVE ANY HYDROGEN
EMBRITTEMENT. THIS KIT HAS A LIMITED LIFETIME WARRANTY.

CHECK TO SEE THAT ALL PARTS LISTED ARE INCLUDED.

2- STRUT SPACERS 1- INSTRUCTION SHEET
6- STRUT EXTENDERS 1- PARTS PACK
1- GROUND FORCE WARNING DECAL

FRONT STRUT SPACER INSTALLATION PROCEDURE.

MEASURE AND DOCUMENT THE VEHICLE HEIGHT FROM FLOOR TO FENDER LIP.

LF _____ RF _____ LR _____ RR _____

1. BEFORE GETTING UNDER VEHICLE, JACK THE FRONT OF VEHICLE UP AND PLACE STANDS UNDER THE FRAME RAILS. LOWER THE VEHICLE ONTO JACK STANDS AND MAKE SURE STANDS ARE SECURELY HOLDING THE VEHICLE.
2. REMOVE TIRE AND WHEEL ASSEMBLY.

3. CHECK THE ANTILOCK BRAKE WIRE AND BRAKE LINE FOR CLEARANCE FROM THE FRAME TO STEERING KNUCKLE.



**ANTILOCK BRAKE
AND BRAKE LINE
LOCATION**

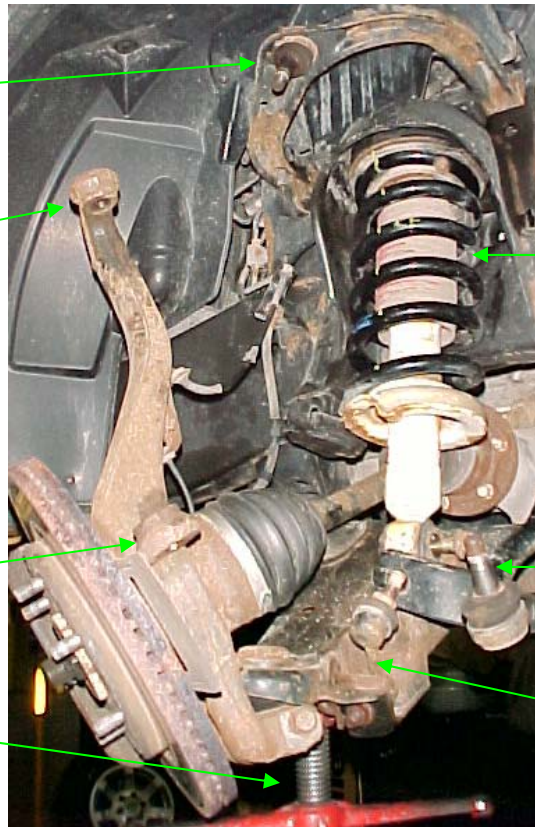
4. SUPPORT THE LOWER CONTROL ARM AND REMOVE THE SWAY BAR CONNECTING LINK FROM THE SWAY BAR AND LOWER CONTROL ARM ON BOTH SIDES OF THE VEHICLE, SAVE HARDWARE.

**UPPER CONTROL
ARM/ UPPER BALL
JOINT
DISCONNECTED
FROM THE SPINDLE**

**UPPER BALL JOINT
TO SPINDLE
MOUNTING POINT**

**OUTER TIE ROD TO
SPINDLE MOUNTING
POINT**

**JACK SUPPORTING
LOWER CONTROL
ARM**



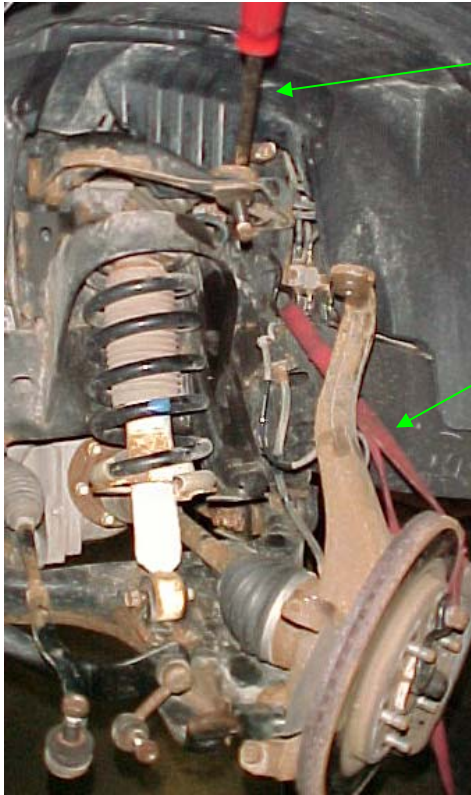
**FACTORY
COIL /STRUT
ASSEMBLY**

OUTER TIE ROD

**SWAY BAR TO
LOWER CONTROL
ARM CONNECTING
LINK MOUNTING
POINT**

5. REMOVE THE FACTORY TIE ROD COTTER PIN, LOOSEN THE TIE ROD NUT, TAP ON THE SPINDLE WITH A MALLET TO POP THE TIE ROD LOOSE FROM THE SPINDLE. REMOVE THE OUTER TIE ROD FROM THE SPINDLE, SAVE NUT.
6. SUPPORT THE LOWER CONTROL ARM, REMOVE THE FACTORY UPPER BALL JOINT COTTER PIN, LOOSEN THE UPPER BALL JOINT NUT, TAP ON THE SPINDLE WITH A MALLET TO POP THE UPPER BALL LOOSE FROM THE SPINDLE. REMOVE THE UPPER BALL JOINT NUT AND REMOVE THE UPPER BALL JOINT FROM THE SPINDLE, SAVE THE BALL JOINT NUT FOR REASSEMBLY.

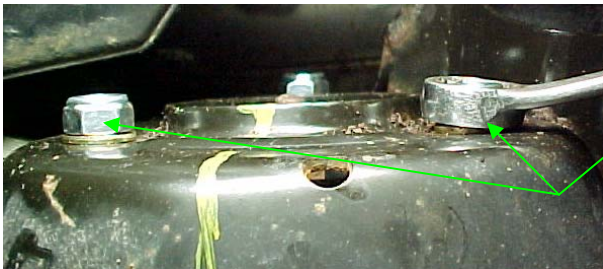
7. SECURE THE TOP OF THE SPINDLE IN TOWARD THE VEHICLE SO THE ½ SHAFT DOES NOT COME APART OR COME OUT OF THE FRONT DIFFERENTIAL. MARK THE STRUTS LEFT AND RIGHT ALSO PLACE INDEX MARKS ON THEM SO THAT THEY CAN BE INSTALLED IN THE CORRECT LOCATION.



BAR OVER THE UPPER CONTROL ARM TO HELP REMOVE AND INSTALL UPPER BALL JOINT TO SPINDLE

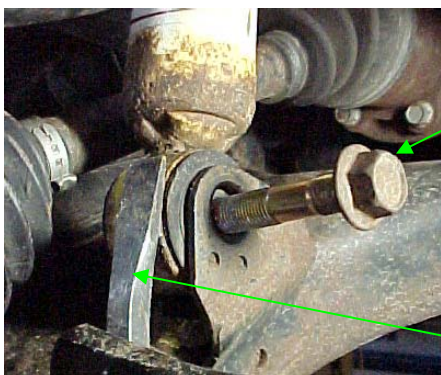
STRAP SECURING THE SPINDLE ASSEMBLY SO THAT THE AXLE HALF SHAFT DOES NOT COME APART WHILE DOING THIS PROCEDURE.

8. LOOSEN THE UPPER THREE **OUTER** NUTS ATTACHING THE STRUT ASSEMBLY TO THE VEHICLE FRAME. **DO NOT LOOSEN THE CENTER STRUT TO UPPER MOUNT NUT.**



LOOSENING THE THREE **OUTER UPPER STRUT MOUNTING NUTS.**

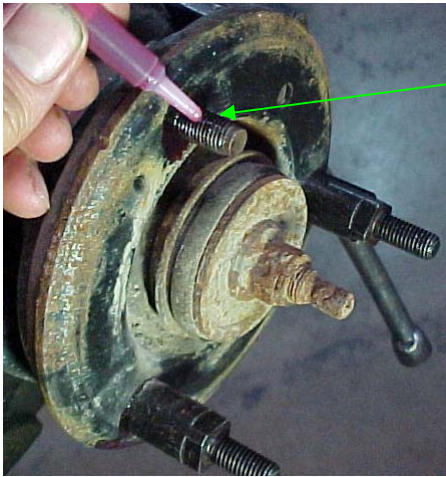
9. REMOVE THE FACTORY BOLT HOLDING THE LOWER STRUT TO THE LOWER CONTROL ARM. (SAVE HARDWARE)



LOWER STRUT MOUNT TO LOWER CONTROL ARM

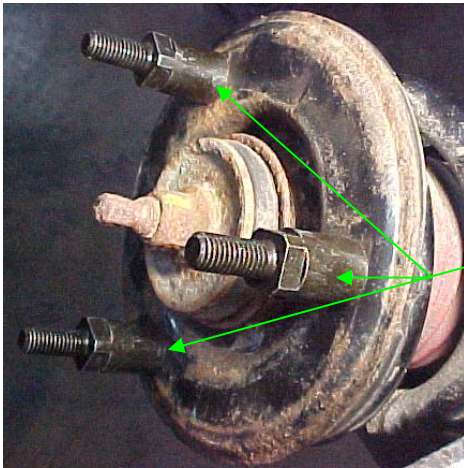
NOTE: MAY HAVE TO USE A BAR TO REMOVE THE PRESSURE ON THE LOWER STRUT HARDWARE TO EASE HARDWARE REMOVAL AND INSTALLATION.

10. LOWER THE JACK SLIGHTLY UNDER THE LOWER CONTROL ARM REMOVE THE STRUT ASSEMBLY FROM THE VEHICLE.
11. SUPPORT THE LOWER CONTROL ARM/SPINDLE ASSEMBLY SO THAT THE CV AXLE AND BRAKE LINES ARE NOT OVER EXTENDED.
12. REPEAT STRUT REMOVAL PROCEDURE TO OTHER SIDE OF VEHICLE.
13. STRUT EXTENDER INSTALLATION PROCEDURE.
 - A. APPLY A FEW DROPS OF THE SUPPLIED THREAD LOCKER TO EACH OF THE FACTORY STRUT STUDS.



HIGH STRENGTH THREAD LOCKER BEING APPLIED TO LOCK THE NEW STRUT EXTENDERS IN PLACE.

- B. INSTALL THE THREE SUPPLIED STRUT EXTENDERS PER STRUT AND TIGHTEN USING A 5/8" WRENCH.



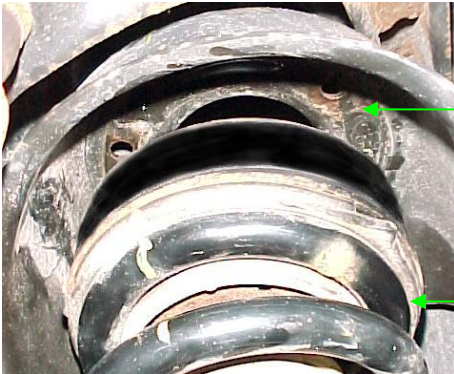
STRUT EXTENDERS BEING INSTALLED OVER THE FACTORY STRUT UPPER MOUNTING STUDS.

14. INSTALL THE SUPPLIED URETHANE STRUT SPACER OVER THE STRUT EXTENDERS ON TOP OF THE FACTORY STRUT MOUNT, USE NISSAN BOLT HOLE PATTERN NO 3.



**URETHANE SPACER BEING
INSTALLED OVER THE STRUT
EXTENDERS, USING NISSAN
BOLT HOLE PATTERN NO 3.**

15. STRUT AND NEW STRUT SPACER ASSEMBLY INSTALLATION.



**INSTALL ASSEMBLY INTO
THE FACTORY MOUNTING
HOLE LOCATION.**

**STRUT WITH NEW
LEVELING SPACER
ASSEMBLY MOUNTED TO
THE TOP.**

- A. INSTALL THE STRUT ASSEMBLY UP INTO THE STOCK LOCATION.
- B. ALIGN AND INSTALL THE THREE STUDS UP INTO THE THREE HOLES IN THE FRAME UPPER MOUNT.
- C. INSTALL THE SUPPLIED THREE UPPER STRUT M10 WASHERS AND **LOCKNUTS** (JUST SNUG).
- D. USING THE FACTORY HARDWARE ALIGN AND INSTALL THE LOWER STRUT MOUNT INTO THE LOWER CONTROL ARM FACTORY STRUT MOUNT. (JUST SNUG THE HARDWARE @ THIS TIME).
- E. JACK THE LOWER CONTROL ARM UP SLIGHTLY AND SECURE. USING A LARGE BAR, PRY DOWN ON THE UPPER CONTROL ARM AND REINSTALL THE UPPER BALL JOINT INTO THE SPINDLE. INSTALL THE FACTORY UPPER BALL JOINT NUT, TORQUE TO SPEC AND INSTALL THE SUPPLIED COTTER PIN.
- F. TORQUE THE UPPER THREE STRUT NUTS TO **35 FT. LBS. (DO NOT USE AIR TOOLS TO TIGHTEN THE UPPER STRUT NUTS)**.
- G. TORQUE THE LOWER STRUT FACTORY HARDWARE TO SPEC.
- H. REPEAT STRUT ASSEMBLY INSTALLATION PROCEDURE TO THE OTHER SIDE OF VEHICLE.

16. REINSTALL THE TIE RODS TO THE SPINDLES, TORQUE THE TIE ROD NUTS TO SPEC AND INSTALL THE SUPPLIED COTTER PINS.
17. REINSTALL THE SWAY BAR CONNECTING LINKS INTO FACTORY LOCATION. LINE UP AND INSTALL THE FACTORY CONNECTING LINK HARDWARE THEN TORQUE BOTH SIDES TO SPEC.
18. CHECK THE ANTILOCK BRAKE WIRE AND BRAKE LINE FOR CLEARANCE AND ADJUST IF NECESSARY.
19. MAKE SURE ALL FASTENERS EFFECTED BY THIS PROCEDURE ARE TORQUED TO FACTORY SPEC.
20. REINSTALL TIRE AND WHEEL ASSEMBLY.
21. CHECK AND MAKE SURE THAT ALL INSTALLATION STEPS HAVE BEEN COMPLETED. CHECK ALL NUTS AND BOLTS FOR TORQUE AFTER THE FIRST 300 MILES AND AT EVERY ROUTINE SERVICE INSPECTION.
22. JACK THE VEHICLE UP AND REMOVE STANDS, THEN LET THE VEHICLE DOWN.
23. MAKE SURE THERE ARE NO CLEARANCE PROBLEMS. ROTATE THE STEERING LOCK TO LOCK UNDER FULL WEIGHT OF THE VEHICLE AND FULL SUSPENSION TRAVEL. MAKE SURE TO DOUBLE CHECK THE BRAKE LINE /ANTI LOCK WIRE TO TIRE/WHEEL CLEARANCE @ THIS TIME.
24. GO BACK AND CHECK THAT ALL INSTALLATION STEPS HAVE BEEN COMPLETED.
25. ROAD TEST VEHICLE.
26. **MAKE SURE TO INSTALL THE SUPPLIED WARNING DECAL FOLLOWING THE INSTRUCTIONS INCLUDED WITH THE WARNING INFORMATION SHEET.**
27. MAKE SURE TO KEEP THESE INSTRUCTIONS WITH THE VEHICLE.
28. THE VEHICLE NEEDS TO HAVE A FRONT END ALIGNMENT PERFORMED IMMEDIATELY AFTER THE INSTALLATION OF THIS KIT IS COMPLETE. THE FACTORY CAM BOLTS WILL NEED TO BE ADJUSTED TO THE FACTORY SPECIFICATIONS.
29. READJUST THE HEADLIGHTS TO THE PROPER SETTINGS.

WARNING: AGAIN CHECK TIRE AND WHEEL CLEARANCE BEFORE MOVING VEHICLE. ALSO CHECK CLEARANCE IF INSTALLING NEW TIRES AND/OR WHEELS.

NOTE: INSTALLATION OF WHEELS WITH BACKSPACING OTHER THAN STOCK MAY CHANGE THE VEHICLE HEIGHT AND ALSO EFFECT THE FRONT END ALIGNMENT.

WARNING:

INSTALLER/DEALER IT IS YOUR RESPONSIBILITY TO INSTALL THE SUPPLIED WARNING LABEL WHERE VISIBLE TO ALL OCCUPANTS AND FORWARD THE SUPPLIED WARNING SHEET & AND INSTALLATION INSTRUCTIONS TO THE END USER. FOR MORE INFORMATION PLEASE REFER TO PART NO 15237 WARNING SHEET THAT IS INCLUDED WITH THESE INSTRUCTIONS.

IF YOU WOULD HAVE ANY QUESTIONS CONCERNING THIS KIT PLEASE CALL 724-430-2068 AND ASK FOR CUSTOMER SERVICE.

GROUND FORCE

Limited Lifetime Warranty

North America Only

GROUND FORCE WARRANTY (LIMITED) AND REMEDY LIMITATIONS

TO: WHOLESALERS, JOBBERS, RETAILERS, INSTALLERS, VEHICLE OWNERS.

Ground Force warrants to vehicle owners that its products are from material defects in workmanship and materials as long as the installing vehicle owner owns the vehicle. Ground Force makes no other warranty. Ground Force makes no application or use recommendations for its products and is not responsible for such decisions. Excluded from the warranty are the finish, poly boots, and steering Stabilizers* (90 days from purchase, only). Ground Force gas shocks Have a limited warranty: One year from date of purchase.

Ground Force retains the exclusive right to determine whether a Defect is material and replacement appropriate.

MATERIAL TO PARTICIPATION IN THIS WARRANTY PROGRAM IS THE DISCLAIMER OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

THE SOLE REMEDY FOR ANY CLAIM OF PRODUCT DEFECT EITHER IN BREACH OF WARRANTY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE IS LIMITED TO

REPAIR OR REPLACEMENT OF THE PRODUCT AT GROUND FORCE'S DISCRETION.

EACH SELLER, INSTALLER AND USER OF THE PRODUCT AGREES THAT THIS LIMITATION OF REMEDIES IS A CONDITION OF THE SALE OF THE GROUND FORCE PRODUCT. EACH DISTRIBUTOR AND/OR SELLER OF GROUND FORCE PRODUCTS IS REQUIRED TO FORWARD WARRANTY/REMEDY INFORMATION TO EACH PURCHASER.

SELLERS, INSTALLERS AND USERS OF THIS PRODUCT(S) UNDERSTAND AND AGREE THAT REPAIR/REPLACEMENT REMEDY DOES NOT FAIL OF ITS ESSENTIAL PURPOSE. HOWEVER, IF DETERMINED TO FAIL OF ITS ESSENTIAL PURPOSE, SELLERS, INSTALLERS AND USERS AGREE, IN THE ALTERNATIVE, TO ACCEPT A REFUND OF THE PURCHASE PRICE AS A SOLE REMEDY.

Ground Force is not liable to sellers, installers or users of its products for incidental or consequential damages occasioned by any defect, malfunction, sale or use of any product, whether in breach of warranty, contract, strict liability or otherwise.

THIS DOES NOT APPLY TO PRODUCT WHICH HAVE BEEN ABUSED, MISUSED, IMPROPERLY INSTALLED OR TO VEHICLE OWNERS SUBSEQUENT TO INSTALLING PURCHASE.

VALIDATION AND CLAIM PROCEDURE

Answer you questions about Ground Force products by calling our hot line 724-430-2068. Take advantage of our warranty/remedy program, complete and return the warranty registration card attached, along with a copy of your receipt, within thirty days (30) of purchase.

To make a warranty claim, notify Ground Force at:

Attn: Ground Force Warranty Claim Department
PO Box 149
Mt. Braddock, PA 15465

Providing your name, address, vehicle make and model, product sold and installing dealer, if any. For your convenience, we suggest you keep this warranty/remedy certificate with you owner's manual!

To register Part, tear off card below and mail to:

Ground Force Registration Dept
PO Box 149
Mt Braddock, PA 15465

GROUND FORCE WARRANTY/REMEDY REGISTRATION

- Yes!! I want to take advantage of Ground Force's warranty/remedy program. I have read the warranty/remedy certificate and certify that the enclosed receipt evidences my purchase of a Ground Force product

Name: _____ Address: _____
Products: _____

Part # _____ Dealer/ Location _____ / _____ Installer _____
Date/Purchase _____ / _____ Make/Model: _____ / _____
VIN # _____ Year of Vehicle: _____ Vehicle GVW: _____

Signature: _____

Part Number 15079A-REV.B



WARNING

MODIFYING AN ORIGINAL EQUIPPED VEHICLE WILL RESULT IN A VEHICLE HANDLING DIFFERENTLY. ALL TYPES OF SUSPENSION MODIFICATIONS WILL AFFECT REACTION, RIDE, HANDLING AND WEAR AND TEAR RATE OF A VEHICLE AND ITS COMPONENTS. ABRUPT MANEUVERS, SHARP AND SUDDEN TURNS AND WEATHER CONDITIONS WILL INCREASE THE VEHICLE'S SUSCEPTIBILITY FOR LOSS OF CONTROL. DEATH AND SERIOUS INJURY COULD BE THE RESULT IF YOU FAIL TO OPERATE A MODIFIED VEHICLE SAFELY. KNOW AND FOLLOW THE LAWS OF THE STATES.

**GROUND FORCE Mailing
Address:**
P.O. Box 149
Mt. Braddock, PA 15465

**GROUND FORCE
Shipping Address:**
714 Braddock View Drive
Mt. Braddock, PA. 15465

(724) 430-2068
(724) 430-2075 Fax

ENCLOSED WITH THIS PRODUCT IS A WARNING LABEL WHICH IS TO BE AFFIXED
ON THE VISOR OF THE VEHICLE WHERE VISIBLE TO ALL OCCUPANTS.